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### THE TWENTY-FOOT CHANNEL AND ST. MARY'S FALLS CANAL TRAFFIC.

In his monthly report for October, 1892. Gen, Poe reports that the proposal for sweeping scows was submitted by the Wolverine Drydock Co., which was accepted, and as soon as approved by the Secretary of War, work upon the scows will begin, and this will be the first actual step toward the beginning of the 20 and 21 feet deep water channel project between Buffalo and Chicago and Buffalo and Duluth. The principal work embraces eight separate sections, viz.: Round Island shoals, Little Mud lake, Sailors' Encampment, Mud Lake shoal, foot of Lake Huron, St. Clair flats, Grosse Point flats and the mouth of the Detroit river. If no failure occurs in the appropriations, the contract time for the completion of the channel will be on November 30, 1895. Gen. Poe's report upon the operation of the St. Mary's Falls canal shows a total tonnage locked through 1,367,351 registered tons and 1,432,533 freight tons, against 1,101,642 registered and 1,152,611 freight tons in October, 1891. The number and class of vessels passed was: steamers, 1,135; sail vessels, 395; rafts and unregistered craft, 71. In addition to the above, there were 129 passages of tugs and scows belonging to contractors. The above shows a great increase over any other October in the history of the canal. On October 14th, 101 craft passed through the lock, exceeding by 11 any previous day's record in the history of the canal. The report says: "The freight tonnage this season, to October 31, already exceeds by 1,215,491 tons that of the greatest season in the history of the canal, having reached a total of 10,256,704 net tons, and with more than a full month of navigation remaining, we may reasonably expect to reach a total of 11,000,000 tons for the season."

### CANAL AND SHALLOW RIVER STEAMERS.

It is proposed by a company in Ireland to build a novel class of steamers for special service in the navigation of canals and shallow rivers. According to a model which has been on exhibition in Dublin, the only portions of the new boats to be immersed in water are four long parallel pipes, nearly three feet in diameter, upon which the entire superstructure of the boat will rest. These are full of coal gas. The steamers will be worked by a screw, situated between the two central pipes and driven by a steam engine, the fuel consisting of the gas stored in the pipes underneath. It is calculated that these pipes will furnish sufficient fuel to the boilers of the engines to last two days, and the supply of gas can always be renewed at any important port near which happens to possess local gasworks. It is claimed that from the central position of the screw the new boat will not cause side currents, which are so destructive to to the banks of a river or canal, and that as the weight of any cargo which the boat may be required to carry will not sink them below the level of the upper part of the gas cylinders on which they rest, they can be navigated, even when heavily laden, in very shallow waters. The proposed boats will be about 60 feet in length by 15 feet in width, and it is calculated that a speed of 11 miles an hour can be very easily attained.

### TWO DISTINGUISHED CONGRESSMEN FROM OHIO.

We present to our readers with this issue portraits of the two Congressmen whom we must look to for well advised and aggressive action in the next Congress on all matters affecting the Lake Erie coast line of Ohio. Tom L. Johnson has already served one term, with the energetic Vincent A. Taylor as his colleague, and an equal attention to the needs of maritime commerce is assured with so able a coadjutor as W. J. White to voice the sentiment of his constituents.

HON. T. L. JOHNSON.

HON. W. J. WHITE.

The Cleveland representatives of the last Congress, although of opposite politics, merged all differences of opinion in the halls of legislation and worked in harmony for the best interests of the lake marine, and this disposition we trust will also be evinced by the colleagues in the next Congress.

Lake Erie ports have, as a rule, been generously dealt with by Congress in the past, and the increasing importance of the lake marine calls for the most earnest endeavors of Congressmen in the future, so that the facilities demanded by large tonnage, in so far as deepening the port approaches and keeping breakwaters, piers and docks up to the modern standard of requirements may be secured throughout the busy season of navigation.

### ELECTRIC LAUNCHES.

A revolution in the matter of pleasure boating will no doubt result from the recent introduction upon the Hudson river of Mr. John Jacob Astor's new electric launch, one of the first pleasure boats in the United States to be operated entirely by electricity. Mr. Astor has been for years a student of the progress of electrical science and is said to take the deepest interest in every new invention of an electrical character. While in Europe last year he became much interested in the electrical boats on the Thames and set to work many months ago to provide himself with an electrical accessory to his beautiful steam yacht, the Nourmahal.

Mr. Astor calls his launch the Corcyra, which is the old name of one of the Ionian islands. She is 37 feet over all and 31 feet 6 inches on the water line, with a beam of 6 feet 2 inches and a draught of from 18 to 20 inches.

The boat is operated by an electric motor, supplied with a current from storage batteries, which are placed under the seats on either side. With a full charge in the batteries, the launch can make a continuous run of from sixty to seventy miles. A trial has shown that the launch can travel at the rate of nearly eleven miles an hour. The operation of the propeller is very much similar to the operation of an electrical fan. By pressing a lever switch, the current is turned on and the boat starts at a speed which may be regulated at four different rates, namely, three, five, seven and ten miles per hour. A backward pressure of the same switch turns off the current and stops the boat. There is a similar boat which is to be used on the lagoons at the World's Fair, in Chicago next year. Mr. Fred Ballin, of the Detroit Boat Works, has had a perfect electrical launch at work since last summer.

So pleased is Mr. Astor with the working of this little boat, that he has decided to build another for use with the Nourmahal. As the big yacht carries her own electric lighting plant, this launch can be easily charged while hanging from the davits. Ex-Judge Hilton some time ago witnessed the operation of the Chicago electric launch above referred to, and is about to have one constructed for his use at Saratoga lake.

John Breniff and Jacob Soderstrom, two fishermen, left Grand Marais on Monday morning in a small sailboat to lift their nets in Lake Superior. A storm arose during the afternoon and late at night fish, fish-boxes and a cap were found on the beach in the harbor. Later the boat, which was badly wrecked, was found on a sand bar. Nothing was seen of the men. Undoubtedly they were drowned. The locality is near where the Western Reserve was lost.

# NEWS AROUND THE LAKES.

### CLEVELAND, O.

The Smith dredges working at the mouth of the river have the bar nearly removed, and say that they will have an eighteen-foot channel there by to-day.

Frank Morrison, compass adjuster, has been engaged adjusting the compasses of the Menominee and Mutual Line of steamers, and although it is near the close of navigation his services are yet in good demand.

The Cleveland Ship Building Company has completed an order for six boilers for the World's Fair whaleback passenger steamer. The boilers are being loaded upon cars and some of them have already started on their journey to West Superior.

Captain Joe Doville has purchased the schooner Glad Tidings, lying against the west pier in the outer harbor. The coal cargo is included in the purchase. The consideration is said to be only a trifling sum and work on the job of raising her will soon begin.

A number of boats have already gone into winter quarters. They take advantage of the 10 per cent rebate which is paid by insnrance companies to boats laying up by the 15th. The insurance policies generally expire on December 1, though extensions are granted on certain tonnage and policies.

The steamer J. V. Ketcham is at the Ship Owners' Dry Dock receiving repairs to the damage inflicted by the Maruba, when the latter struck her on the night of the big storm. The Nahant, which was struck by the whaleback steamer Pillsbury, is awaiting her turn at the dock.

The tug S. S. Stone arrived at this port Tuesday afternoon with the schooner H. P. Baldwin in tow. The Baldwin was driven up on the Canadian shore near Colchester, Ont., on the same night the Gilcher was lost. She was light, and the wrecking operations took considerable time. The Baldwin has a canvas jacket over a bad hole in her bow, and had a steam pump aboard. Her upper works are also badly damaged.

add Cleveland

The Lehigh liner Tuscarora is at this port where she will be repaired during the winter. Temporary repairs were made in Detroit by bolting oak planks over her broken plates and calking them in place. Though her bottom is badly raked by the rocks, only seven frames are broken. Several plates will have to be taken off and straightened. The damage will probably not exceed $15,000. Failing any reply to the repair bids which were asked for by the representatives of London Lloyds the Globe Iron Works Co., her builders, will carry out the repairs.

Mr. J. F. Pankhurst, general manager of the Globe Iron Works Co., has been visiting New York during the week; he is expected back to business on Monday.

Captain W. A. Collier, manager of the Vessel Owners' Tug Line, has returned from Buffalo, where he has contracted with the Union Dry Dock Company, of that city, for the construction of two new wooden tugs. One of the tugs will be 84 feet in length by 19 feet beam and 9 feet depth; engines will be 25 by 28 inches, with 150 pounds pressure. The other will be 75 feet long, with 17½ feet beam, and 9 feet depth, with engines 21 by 24 inches, and boilers of 150 pounds working pressure. The tugs are to be delivered on April 1, 1893, or as soon thereafter as navigation will permit.

### GOING INTO WINTER QUARTERS AT CHICAGO.

*Special Correspondence to The Marine Record,*

Grain freights Monday were firm on the basis of 2¼ cents on wheat to Buffalo.

The new steel steamer Thomas Maytham arrived here Wednesday evening of last week from South Chicago, to take in her maiden load of corn for Buffalo, and left here Thursday night. She is a splendid looking steamer and reflects great credit on the Chicago Ship Building Company, her builders.

Captain John Doherty, of the Anchor Line steamer Schuylkill, on his arrival here last Saturday, received a telegram from Buffalo stating that his brother was dying. The Captain took the next train for Buffalo. He arrived back here on Tuesday, his brother's condition having slightly improved.

The schooner George Sturges of this port, is reported from Escanaba, as having struck the eleven foot shoal Sunday afternoon, she drifted off the rocks and came to an anchor near Peninsula Point. She is loaded with cedar and is leaking badly. The wrecking tug Monarch will tow her to Milwaukee.

The Independent Tug Line have been given the contract by this city to run two tugs to do the work at the Two Mile Crib, Breakwater Crib, Lake View Crib, Four Mile Crib and 68th Street Crib, during the winter months at $1,175 per month, and $6 per hour, for any additional tugs they may be compelled to use. The line will keep their tugs Commodore Jack Barry and Ira O. Smith running to do the work.

The iron steam yacht Volanta arrived here from New York last Thursday, in command of Captain Hogobaum, formerly of Cleveland, and Engineer Edward P. Gould, of Chicago. She is 85 feet long over all, 12 feet breadth of beam 6 feet depth of hold. She has a fore and aft compound engine, 9 and 14 by 14, by Herschoff and a Roberts water-tube boiler 5 by 7. She is handsomely finished and furnished, and is reported speedy. She has been recently purchased by C. E. Gifford, of this city.

CHICAGO, ILL.—Captain Joseph Corcoran of the Anchor Line steamer Clarion and Captain D. Gillies of the Western Transit Line steamer Boston, which were in this port last week reported to your correspondent that when they passed Point Edwards, about 10:30 o'clock on Monday night, November 7th, the red range light was out. Captain Corcoran notified the steamer Hudson and other steamer which were on their way down of the circumstance.

It is with extreme regret that we announce the death of L. L. Burton, senior member of the firm of Burton, Calbick & Cook, vessel and marine insurance agents, on Sunday last, at his home, No. 3654 Pararie avenue, of pneumonia. He was 31 years of age, and leaves a widow. The deceased was general agent of the Cincinnati Underwriters, and was much esteemed by all. His remains were taken to Yspilanti, Monday night for interment.

Captain John Piel, of the schooner Apprentice Boy, was compelled to discharge his crew of union sailors on the arrival in port last trip, as he considered them unreasonable in their demands. The Captain has carried many deck-loads of lumber this season, and has paid the crews double wages for assisting in unloading. The crew last trip, demanded 35 cents per 1,000 feet, to assist in unloading the deck-load of lumber, which would have amounted to about $40. Consequently the Captain discharged them and employed four of the lumber yard workmen, who were very glad to recive $15 for their six hours work assisting pulling off the deck-load.

Chicago Board of Marine Underwriters made the following grain rates for the latter part of November: Huron, Sarnia and Detroit River, $1; Georgian Bay and Lake Erie, $1.10; Lake Ontario and Ogdensburg, $1.25; Montreal, $1.50.

The following schooners have stripped and gone into winter quarters since my last letter: City of Sheboygan, L. M. Mason, Elgin, W. H. Dunham, Iver Lawson, Phœnix, Charlie Marshall, Stafford, John Mee, Jack Thompson, Mystic and Lotus; many more will lay up on their arrival in port, as there is no profits for the present rates of freights and wages.

At Miller Brothers' shipyard, the steamer W. H. Haskell was in dry dock for a new fore-foot, the schooner Anne O. Hausen to have a leak stopped, the tug T. T. Morford for a new shoe and fore-foot, the schooner George L. Wren for some calking, the schooner Commerce is at the derrick to receive new main and mizen mask and converting into a three and after, the schooner Michigan received some new bulwarks forward, the schooner yacht Wanderer was in dock to have a leak stopped.

Captain Thomas Clark has decided to let his schooner Lillie Pratt stay ashore until the spring. She has received very little injury, and lays high up on the beach on a sandy bottom. WILLIAMS.

### THE WEEKLY GRIST FROM BUFFALO.

David Bell has begun active construction on the government steamer Calumet.

The schooner Isabel Reed's damages in collision with the schooner T. S. Fassett, of the same tow, have been surveyed and placed at about $4,500.

The Erie canal carried more grain east than the railroads the last week. Canalers have made money late this season.

The steamer A. L. Hopkins will bring down from Detroit what dry flour was saved from the steamer Tuscarora.

This week Hingston & Woods will begin the work of deepening the Erie canal, between the Commercial street slip and Black Rock.

The last Lake Superior steamer will leave about the 20th inst., and vessel men predict the practical close of navigation at this port about December 5th.

The canal boat J. G. Alport was sunk at Syracuse last Saturday. All but 800 bushels of her cargo of 8,400 were wet.

The whaleback steamer J. B. Colgate towed barge 118 from Duluth to Buffalo in 92 hours, an average of over 10 miles an hour. The Colgate had 90,000, and 118, 92,800 bushels of wheat.

The new Tifft Farm ferry steamer N. F. Hallstead came out this week. She is 51 feet long, 14 feet beam and will carry a large number of passengers. Her stack is painted like those of the Lehigh Valley liners, and she will make 11 or 12 miles an hour. She will be fitted with an electric light plant next season.

The new tug Excelsior, while towing the steamer D. C. Whitney, struck a sunken log and broke her wheel. She has received a new one.

Considerable ore has been arriving the past week, most of it consigned to the same dock. The Viking and Michigan were delayed several days on this account.

The steamer Hiawatha did a towing job of considerable magnitude on her last trip down, towing, besides her regular consort, the S. H. Foster, the disabled steamer John B. Lyon and consort Lizzie A. Law. All the vessels were loaded.

During the season of 1892 the Crystal Beach Steamboat Co. carried 216,202 paid passengers to Crystal Beach. The latest from this company is that they are contemplating building a steel twin screw steamer 175 feet long, 50 feet beam and capable of carrying 1,800 passengers.

While being winded at the Tifft Farm, the schooner John Martin was blown against the steamer North Wind, damaging a life boat and tearing out the starboard main rigging of the steamer, and almost entirely demolishing the headgear of the schooner. The loss will amount to about $500.

The Union Drydock Co. has contracted for enough work to keep its forces at work all winter. In addition to the new steamer before mentioned, three wooden tugs will be built by them. The one for Hand & Johnson will be 82 feet six inches long, 19 feet beam and 10½ feet deep, with a 22x24 engine. It will be one of the four largest tugs hailing from Buffalo.

The Union Drydock have not quite completed the transfer of their steel yard from the Blackwell canal to their property on Buffalo creek, but will be ready to start in there as soon as the iron for their new steamer arrives. Their water frontage is curtailed by the change, but any difficulty on this score will be avoided by launching into their drydocks.

The raising of the fuel scow Red Jacket is proving to be a most difficult task. She has been on the bottom for over a week, and though 200 tons of her load of coal have been hoisted out, she has not yet been floated. It is now proposed to raise her to the water's edge with two dredges, the lifting to be accomplished by the buckets of the dredges, when it is hoped she can be successfully pumped out.

BUFFALO, N. Y.—The Lake Erie Transportation Co. had an eye to the future when they ordered their new steamer from the Union Drydock Co. Though but eight feet longer than the steamer S. C. Reynolds, of the same line, the new boat will be two feet deeper. The builders say this is in anticipation of the deep lake waterways. The new steamer, though something under 300 feet keel, will have a depth of 26 feet and will be able to load to at least 18 feet.

It was stated this week by prominent vessel owners and captains that the steamers Owego and Chemung, of the Union Steamboat Co., had 500 tons more of iron in their construction than any other lake steamer. At the time they were launched, this extra strength was considered an unnecessary precaution. These steamers are, however, still afloat, while the unfortunate accidents to steel boats of lighter build lead one to think that, after all, the extra 500 tons of strength was not so much of a useless burden,

Monday last, the whaleback steamer Washburn was the scene of a serious disturbance. Several sailors and firemen who had been paid off went on a spree and came back to the steamer pretty well loaded and proceeded to kick up a row. Capt. McFarlane and a wheelsman attempted to quell the disturbance, but were set upon with belaying pins and other weapons and rather roughly used. Capt. McFarlane was badly cut about the face and the wheelsman was painfuily bruised. A squad of policemen, who were at once summoned, failed to find the assailants.

The barge Dan Rogers, which was bought by Capt. James Galvin, will be repaired, at a cost of $2,500. P.

### FROM OVER THE LINE.

*Special Correspondence to The Marine Record.*

TORONTO, CAN.—The majority of marine men here are favorers of a free trade policy, consequently there was great rejoicing when the news was certain that Cleveland had been elected to the presidency of the United States. Capt. Baird of the Canadian schooner W. T. Greenwood, got a cargo of barley at this port and made a bee-line for Oswego, in order that he might put in his vote for the Democrats, which he arrived just in time to do, and came back with a cargo of coal jubilant. He made the round trip, and did the voting, inside of six days.

The new Wellington street bridge over the Lachine canal at Montreal is to be a one-pier swing level one, to cost $100,000. The expropriated land will cost as much more, so that the whole with extras will probably cost $250,000.

Here are figures which show the great stagnation at present prevailing in Canadian marine trade: According to official reports the total tonnage on 31st December, 1878, was 1,333,015 registered tons. This declined to such an extent that on 31st December, 1891, it was only 1,005,475, a decrease in registered tonnage in thirteen years of 327,540 tons, and a decrease of 19,499 tons register for the year 1891. And after all over ten per cent. of the above shipping consists of fishing vessels, stone-hookers and harbor tugs. The total tonnage of new ships built and registered in the Dominion in 1890 was 52,378 tons; and the total Canadian tonnage on the Great Lakes and rivers was 122,500 tons consisting of 1,015 steamers and other vessels. It is easy to contrast all this dismal tale of figures with the progress of the United States merchant marine on the inland seas.

"All of our lake towns," said a correspondent in the Toronto *Globe*, "are like the Canadian shipping—in a state of decline—compared to the American cities and towns. The city of Cleveland alone is producing more steamships in one year than all Canada. * * * As Canadian shipping is rapidly disappearing, so also is our fishing industry. In both departments of business the Americans are increasing at the rate of 15 to 20 per cent. yearly. * * * While the Dominion government is greatly to blame in haggling over a few thousands of dollars of Welland canal tolls, many millions of dollars are annually lost to Canada by our bad laws and fishery restrictions." The whole thing in a nut shell seems to be, that Canada needs a change of administrators as badly as did the United States; and many are of the opinion that if the government go to the country within the next year they will be completely snowed under as an endorsement of the action of the American voters. The recent developments with regard to the reciprocal wrecking laws have added fuel to the already rapidly growing discontent among even the conservative marine men.

Messrs. W. & R. Freeland intend during this oncoming winter to lay in a big stock of timber and stones for the rapid construction of their second wharf at the foot of Scott street immediately on the opening of spring. They are both energetic gentlemen, and vessel owners are beginning to be satisfied that there will be greatly improved quay-room in Toronto harbor next summer. Capt. Robert Freeland, besides being energetic is a courageous man, for he bears a royal silver medal for the gallant rescue of lives from a watery grave when others feared to take the risk.

A marine man of this port would like to know if there is any international law with reference to beach-combing. Cannot beach-combers be arrested in either country as ordinary thieves? Will the editor of THE MARINE RECORD kindly inform him? J. A. C.

A beach-comber in the modern acceptation of the term is one who prowls along, or "combs the beach" for a living, these people are usually understood to be sailors who will not, or care not to ship, so as to earn an honest living at their calling. The laws regarding flotsam, jetsam and ligan or lagan are clearly defined both in Canada and the United States, nor can any object of value washed upon the beach of either country, or picked up at sea, be appropriated by the finder. The collector of customs of the district having authority to retain possession subject to due process of the law. Beach-combers are to the marine fraternity, as loafers are to the shore community, and although they not unfrequently help themselves to a precarious existence, when caught helping themselves to what does not belong to them, are subject to the same pains and penalties as other lawbreakers. (ED).

## DETROIT MICH.

*Special Correspondence to The Marine Record.*

The triple screw railroad transfer ferry steamer Ann Arbor No. 1 has been at Saml. F. Hodge's yards for a few days having some alterations made in her independent air pumps. Captain Ed. Kelley of Cleveland who is superintendent of the line speaks in high terms of the two steamers and so far as No. 1 is concerned, he gave her a good test coming up from Toledo to this port and found with all of the propeller wheels working, everything satisfactory. Although there are three propeller wheels, great speed has not been warranted, but rather ice-breaking and stability qualities have been ensured. Captain Kelley speaks in high terms of No. 1 and if possible I will secure you a photograph of the steamer so that your readers may see what the new vessels are like. The Craig Ship Building Co., Toledo, O., are the builders.

The Tuscarora's damaged cargo has been entirely disposed of. The steamer has been temporarily repaired and released from dry dock, and has proceeded on to Cleveland in charge of the agent of the English underwriters.

Claude Haywood, aged twenty-one, a deck hand on the tow-barge G. C. Jackson, was instantly killed Monday morning, by falling from the mast-head of the vessel, one mile below the southeast bend St. Clair river. He was a single man, residing at Bay City. His father is master of the barge.

A letter has been received from Captain George B. Kendall, of the steamer Spinner, now on her way down from Lake Superior towing the barges Shawnee and Godfrey. The vessels belong to the Farwell & Adams fleet of this city. He says: "On Thursday morning, when twenty miles west of Portage Entry, we came up with the steamer Osceola with disabled machinery. He blew for us, and we had to turn our tow three times before we could pick her up. The wind was north-west and a big sea rolling. We succeeded in getting his line and had him in tow ten hours, when I signaled the Thomas W. Palmer, and he took him from us. It was a dangerous undertaking picking the Osceola up with our barges in a heavy sea, but I could not leave him. I was bound to help him if I could." Captain Kendall's action probably saved the Osceola from going ashore on Keweenaw Point. He deserves great credit for assisting a distressed boat in the manner he did.

## WRECK OF THE GILCHER.

*Special to The Marine Record.*

ESCANABA, MICH.—The wreck of the steamer W. H. Gilcher, supposed to have recently foundered on Lake Michigan, has been sighted by fishermen on High Island which is sufficient proof that that structural stability did not enter into the sad casualty at all.

## NOTICE TO MARINERS.

Notice is hereby given that on the 12th inst. the red buoy on Lansing shoal, three miles north of Squaw island, Lake Michigan, was accidentally picked up by the tow line of a barge, and was dropped about four miles northwest of Gray's Reef light vessel.

The buoy will be replaced as soon as possible.

By order of Light-House Board, NICOLL LUDLOW, Commander, U. S. A., Inspector 9th L. H. district.

## PROF. MENDENHALL'S REPORT ON THE LUDLOW-HEYERMAN SUSPENSION.

The Treasury Department makes public the report of Prof. T. C. Mendenhall, superintendent of the coast and geodetic survey and member of the Light-House Board to Secretary Foster concerning the relief of Col. Ludlow and Commander Heyerman from duty under the Light-House Board.

It is understood that Secretary Foster has informed Col. Ludlow that if he wishes vindication he can obtain it by applying to the War Department for an investigation of his official conduct by a formal court of inquiry composed of his superior officers, but the Treasury Department can take no further steps in his case.

Prof. Mendenhall sums up the case against Col. Ludlow as follows: Col. Ludlow, throughout his entire service with the board as engineer of ninth and eleventh districts, exhibited a disposition to exceed his authority, to be insubordinate, to trespass upon the rights and authority of other officers, and to be disrespectful in his intercourse with the board. Although he received the reprimand of the board on several occasions it did not prevent his continuing in a course (to which the word contumacious may not justly apply) which culminated in the matter of the lighting of St. Mary's River. Above it is fully shown how, in this case, he acted without authority, but the gravamen of his offense was that he so completely kept the board in the dark as to his plans and operations that it was forced to take steps which have been unfortunately greatly misunderstoad by many people and grossly misrepresented by others, so that it has been assumed in certain localities that the board was an obstacle in the way of successful navigation of the St. Mary's River at night, and that in opposition to it Col. Ludlow stood out as the originator and champion of this most important improvement.

The lighting of St. Mary's river per se has nothing whatever to do with the request for the relief of Col. Ludlow, as I trust I have now made clear.

With all these facts before you I am convinced that you will agree that the Light-House Board could not have pursued any other course. It is a body charged with great responsibility. It is particularly organized so as to secure independence of judgment and action, as not one of its members receives a dollar of compensation on account of his connection with it, or is it in any way dependend upon such connection. Since the time of Joseph Henry no government board has enjoyed a higher reputation or has profited more through the voluntary, unpaid service of its members.

If such a board has no recourse when those detailed to its service are insubordinate, disrespectful or if even only distasteful, it is clear that its membership could not be easily recruited among self-respecting men.

The report of Prof. Mendenhall to Secretary Foster says: I have received the letter from Mr. John Atkinson to Gen. R. A. Alger relating to the relief of Col. Ludlow and Commander Heyerman from duty under the Light-house Board and have read it carefully, as you requested. It is so full of misrepresentations, erroneous and misleading statements and false logic that is difficult for one who is at all familiar with the facts relating to the subject to treat it seriously. It appears, however, to be the work of an attorney or advocate employed to prepare the most favorable presentation of a case which, originating in a suppression of the truth, can be helped now only by a more vigorous prosecution of the same policy.

As far as is known to the board the scheme for making this river navigable at night by the use of a system of lights originated with the Hon. R. C. Parson of Cleveland, Ohio, at that time a member of Congress, who wrote to the Light-house Board about the matter on December 22, 1888, inclosing with his suggestion a scheme for lighting the river which he believed would, if carried out, enabled ships to make the passage safely at night.

It is important to note this fact, in view of the efforts that have been made to create the impression that the credit of lighting the river is entirely due to Col. Ludlow, and that the Light-house Board has maintained an attitude not friendly to the project. This claim for Col. Ludlow, is distinctly made in the letter of Mr. Atkinson and by implication in the wildly distributed pamphlet prepared by the colonel himself. The facts are that he was not the first to suggest the improvement; that he did not prepare the first scheme for lighting the river, and that it was only when directed to do so by the board early in 1889 that he gave attention to it conjoinly with the inspector of the District.

Prof. Mendenhall then reviews in detail the progress of the scheme for lighting the St. Mary's river, as planned by the Light-house Board, shows how Col. Ludlow persistently kept the board in the dark as to his plans, keeping even his colleague, the inspector, in ignorance, and after referring to some technical features of the correspondence says:

The colonel, therefore, found himself in this situation: He had determined to radically modify the approved plan of 1890 and to increase the number of lights from thirty-eight to forty-five; he had never so informed the board and had never asked authority for making the change; although more than twenty communications referring to these lights had been sent the board up to May 3, 1892, in not one was there a hint that such a change was in contemplation; he had not even informed his colleague, the inspector, although he knew that the board would expect joint approval of any scheme before its adoption; not only had he thus kept the board and the inspector in entire ignorance of his plans, but he had actually gone to the extent of putting them into operation, by the erection of all lights, without a single word of authority for such a course.

In such a situation it is easy to see that, having himself rendered compliance with the orders of the board impossible, it was desirable to compel the board to recede from position it had taken.

After this there seemed but one course for the Light-House Board to pursue, and on June 14 it unanimously, Col. Elliott being absent, voted to request the relief of these officers. At that meeting I stated that it did not appear to me to be necessary to to make any explanation or give any reason for this request; it ought to be sufficient for the Board to express its desires, as it might happen that an officer would be *persona non grata* to the Board without having disobeyed orders or been guilty of disrespect. The Board was never likely to take such action for trifling causes, and as it had no power of court-martial, an expression of its desires should be enough.

In the letters which you wrote to the honorable, the Secretary of War and the Secretary of the Navy requesting the relief of the officers, you say:

This action is taken in consequence of a recent failure to satisfy the Light-House Board by neglecting to perform duty assigned him.

When it is remembered that the Board had seven times telegraphed Col. Ludlow to carry out its instructions, and without result, it would seem that on the whole you put it very mildly.

Speaking for myself as a member of the Board, I wish to express my regret that Commander Heyerman was involved in this matter.

It seems clear that he was as ignorant of what was going on as was the Board, having been, like it, ignored by Col. Ludlow in the development of his plans. Unfortunately he was brought into the controversy just at the end, and by signing the telegrams with Col. Ludlow became responsible with him to such a degree that it did not seem possible to separate the two in the action of the Board. At this stage of the proceedings the engineer was apparently glad to receive the support and approval of his colleague, the inspector whom he had previously ignored.

If the record of Col. Ludlow during his few years of service as engineer of the eleventh district be examined in so far as it relates to his habits of prompt obedience to the instructions of the Board, and his practice of showing it that respect in his written communications which any subordinate is expected to render to his superiors, and especially in that service to which the colonel is doubtless proud to belong, it will be found far from enviable.

On numerous occasions prior to and aside from those already referred to he violated or ignored the laws and regulations and was several times reprimanded by the board for so doing.

He assumed to do what only the honorable Secretary of the Treasury is authorized to do, in suspending a light-house keeper early in 1890.

On these occasions he assumed authority which belongs only to the inspector, and interfered with the operation of stations, including the expenditure of funds, all without authority from the board, and, indeed, without the board's knowledge.

For thus exceeding his authority the board has more than once reprimanded him. He appears to have a particular fondness for doing what he has no authority to do, without informing or consulting those who should be consulted, and then trying to get authority and support "after the act." On several occasions he has in this way placed the board in a very embarrassing position.

Without intimating his attention to the board, he began a correspondence with the Canadian light-house authorities, writing an officiul letter to them on the subject of lighting the St. Mary's river. The first knowledge the board had of this correspondence was from the Department of State, to which a communication concerning it had been addressed to the British minister. Col. Ludlow certainly knew that it was the business of the board, through the proper channels, to conduct correspondence of this kind, and he could hardly have been surprised at the reprimand which the board felt obliged to administer.

# CORRESPONDENCE.

☞We do not hold ourselves responsib'e in any way for the views or opinions expressed by our correspondents. It is our desire that all sides of any question affecting the interests or welfare of the lake marine should be fairly represented in THE MARINE RECORD.

INFORMATION WANTED.

TORONTO, November 15, 1892.

*To the Editor of The Marine Record:*

In your issue of the 10th you publish an item respecting the loss of the W. H. Gilcher, off the Manitous, Lake Michigan.

A sister of one of the Gilcher's watchmen, Robt. McElhern, resides here, and from the day she was first informed of her sad loss (through our local newspapers) she has heard not a word from the owners. We understand she was owned by the captain and Mr. Thos. Maytham, of Buffalo, and although the latter was notified of his (McElhern's) sister's whereabouts, he has not even taken the trouble to inform her officially or even given her to understand that he would at least do what he could to recover the body. Surely there is some understanding between the Union of Seamen and the sailors as to this.

What I would like you to do is to publish the following in your next week's issue, so that in case any one has any particulars to communicate we may get the benefit of it; or you can publish what is perhaps better, a simple description of him, or even inform me, if possible, to what union of seamen he belonged and to what branch. If you have not got this information in hand, a request from you would, I think, have the desired effect. He was a member of one of the associations, but which one I am unable to say.

Mr. Robert McElhern shipped on the Gilcher at Buffalo, October 24th, as watchman. He was about 35 years of age, about five feet nine in hight, rather large nose and sandy moustache. He also had a scar about an inch in length at the top of the forehead, over the right eye.

As from here I can't find out where to write to reach the parties whom I presume have been sent to search for the bodies, you will confer a great favor if you will have the above description forwarded, so that in case it is found, I may be notified direct. His sister has left everything in my hands, as she is unfit for any strain or worry beyond what she has already undergone. By inserting an article in your next week's issue, requesting that I be communicated with at once, you will be conferring a great favor on the sister of the supposed drowned watchman, and also greatly oblige

EDWARD J. FRANCES, 166 William St.

(Our correspondent is wrongly informed regarding the ownership of the Gilcher. J. C. Gilchrist, Vermillion, O., was her managing owner, and he has taken every step in his power to alleviate the suspense and sufferings of those who were bereaved by the unfortunate loss of the steamer, and he has also published a statement asking for information and promising to care for any bodies which may be picked up.—ED.)

## NATIONAL REGATTA TO BE HELD AT CHICAGO.

*Special to The Marine Record.*

CHICAGO, ILL.—Although the movement inaugurated by the Iroquois Boat Club, of this city, to bring the regatta of the National Association of Amateur Oarsmen to Chicago next summer, instead of Saratoga, is not meeting with the enthusiastic support of Western rowing organizations, it is making good headway. Some profess to believe that the Iroquois club cannot successfully handle such a big affair as the 1893 meeting is sure to be, but the members are confident they can manage the meeting in good shape.

On the face of it the task looks to be impossible, for it is known that there is not a body of water within a reasonable distance of Chicago which combines all the features which go to make a regatta not only a success but a possibility. Lincoln Park course was discussed and found to be altogether out of the question. There remained but one, and that the body of water most dreaded in America by oarsmen—Calumet Lake, off Pullman. Shallow and full of weeds rising nearly to the surface, it has proved in past regattas the pitfall of many an ambitious sculler, whose chances for a win was good until he got his oars into the holding mass immediately below the surface. Barring this fatal detriment Pullman might be called an ideal regatta town.

Several meetings were arranged between the Pullman people and the Chicagoans interested in getting the National Association to the city, with the result that the latter were assured control of Athletic Island, which contains the grand stand overlooking the course, if they could raise the money necessary to dredge the course deep enough to make fast rowing a possibility, Figures were obtained, and it was found that a channel five hundred feet wide and one and one-half miles long could be dredged at a maximum cost of $6,000. DeWitt C. Cregier Jr., the leading spirit in the movement, has obtained a promise of $6,000 from a millionnaire of this city, said to be George M. Pullman himself, which practically puts the matter in shape to present to the meeting of the Board of Directors of the National Association.

If the course can be put in the proper shape—and assurances are made by engineers that it can—next year will see the greatest gathering of amateur oarsmen ever held in this country. The Mississippi Valley, the Northwestern and the Chicago navy regattas would all precede the national championships, which would be given to Chicago to a certainty if the present plans are carried out, and there is no good reason why they should not be.

## THE TRACK OF COLUMBUS ON HIS FIRST VOYAGE.

Most important, perhaps, is the question of the compass variation and its influence. If the variation was westerly over the greater portion of his route, that circumstance would have falsified his reckoning if he did not allow for it. And, as a matter of fact, it appears to have been so with the variation at that date, and also Columbus appears *not* to have allowed for it. One can only say "appears" because the journal is so vague and crude. Thus though Columbus observed the pole star and the indications of his needles, what he says is that he found the needle pointed a full-point west in the evening, but in the morning it pointed true; and so he says it was the star that moved, while the needle always pointed true.—*Nautical Magazine.*

## OIL FOR CALMING THE WATERS.

As the stormy season has commenced in earnest, the following brief rules, quoted from the "Abstract Storm Log," issued by the Hydrographic office, should be carefully considered by masters of vessels:

Thick and heavy oils are the best. Mineral oils are not so effective as animal or vegetable oils. Raw petroleum has given favorable results, but not so good when refined. Some oils, like cocoanut oil and certain kinds of fish-oil, congeal in cold weather and are, therefore, useless, but may be mixed with mineral oils to advantage. As a general rule, probably the best way to use oil is by filling the closet bowls forword with oakum and oil, letting the oil drip out slowly through the waste pipes. Another simple and easy way is by means of canvas bags about one foot long, filled with oakum and oil, pierced with holes by means of a coarse sail needle, and held by a lanyard.

Running before a gale, use oil from bags at the catheads or from forward waste-pipes; if yawing badly and threatening to broach-to, use oil forward and aft the beam, on both sides. Lying-to, distribute oil from the weather bow. With a high beam sea, use oil bags at regular intervals along the weather side. In a heavy cross sea, have bags along both sides. Steaming into a heavy head-sea, use oil through forward closet-pipes. There are many other cases where oil may be used to advantage, such as lowering and hoisting boats, riding to a sea anchor, crossing rollers or surf on a bar, and from life-boats and stranded vessels.

## ENGINES OF A MODEL BATTLE SHIP.

Says *Industry* (San Francisco), we applied to Mr. George W. Dickie, manager of the Union Iron Works in this city, for particulars respecting the number of steam engines on the battle ship Oregon. Mr. Dickie has sent the following list, set down from memory, which is here arranged in tabular form:

| No. of engine cylinders. | Purpose of engines. | Character of engines. | Diameter of cylinders in inches. | Stroke in inches. |
|---|---|---|---|---|
| 6 | Main driving, 9,000 horse power | Triple | 34½ 48 75 | 42 |
| 4 | For air pumps | Double | 6 | 12 |
| 4 | For circulating pumps | Compound | 7 12 | 6 |
| 2 | Hot well pump engines | Single | 8 | 16 |
| 2 | Fire and bilge pumps | Single | 10 | 16 |
| 2 | Air and circulating pumps | Single | 10 | 16 |
| 4 | Ventilating fans | Compound | 5 9 | 6 |
| 4 | Barring engines | Double | 6 | 6 |
| 2 | Reversing engines | Single | 14 | 18 |
| 4 | Hydraulic steering gears | Double | 8 | 12 |
| 4 | Main feed pumps | Single | 12 | 16 |
| 4 | Auxiliary feed pumps | Single | 10 | 16 |
| 8 | Ash hoisting | Single | 5 | 6 |
| 16 | Fire room fans | Compound | 5 9 | 6 |
| 4 | Steam cranes | Double | 8 | 10 |
| 12 | Hydraulic pumping | Single | 20 | 30 |
| 8 | Steam winches | Double | 8 | 10 |
| 2 | Windlass engines | Double | 16 | 12 |
| 8 | Dynamo engines | Compound | 7 12 | 6 |
| 2 | Ice Machines | Double | 12 | 16 |
| 8 | Ventilation | Compound | 5 9 | 6 |
| 1 | Distilling room, air | Single | 10 | 12 |
| 1 | Water and brine | Single | 6 | 10 |

Besides this list, making 112 engines, counting each steam cylinder, there are some connected with the torpedo service, the dimensions of which are not yet determined. After looking over this list one will conclude that the steam machinery of a modern war ship is the principal part. She is, indeed, a great magazine of machinery, much of it of a delicate nature, and all requiring intelligent care.

## AN ANTI-CORROSIVE PAINT.

A patent has recently been taken out by Mr. Rudolph Lender in England for the preparation of a paint which, it is stated, preserves metals from rust, etc. The paint is unaffected either by heat or cold. When applied to sheet iron it was found that the coating was unaffected by warm water or steam, and also to be unaffected by the action of acid and alkaline liquids, ammonia gas, hydro-chloric acid gas, and sulphuretted hydrogen gas. The principal ingredient in this paint is a silicate of iron which is found in the neighborhood of natural deposits of iron ores, and also occurs in veins, in deposits of granite, which have become decomposed by contact with the air. This deposit, which is employed in the form of a finely ground powder, is found to have the following composition:

| | |
|---|---|
| Silicic acid | 5.4 |
| Phosphoric acid | 0.05 |
| Oxide of iron | 88.65 |
| Alumini | 0.5 |
| Lime | 1.75 |
| Magnesia | 1.35 |
| Undermined | 2.3 |
| | 100.000 |

The silicate of iron in a very finely divided state is mixed with oxidized linseed oil, and yarnish, to form a paste. When required in the form of paint it is thinned down with good linseed oil, to which, if deemed desirable, a drier, such as litharge, is added, at the same time mineral colors to produce the required shade are like wise added.

## A NEW DEPARTURE.

The National Mutual Insurance Co., of New York, occupies a new field of life insurance. It issues policies to many persons such as sailing masters and marine engineers, who, by reason of their occupation, and others who on account of over or under weight, former illness, family history, etc. etc., have heretofore been denied the benefits of life insurance by other companies. This is done by charging a rate corresponding with the risk assumed, the same as is fire, accident and marine insurance. Hitherto this idea has been lost sight of and applicants for life insurance who could not conform to certain cast iron rules, in which prejudice often plays a larger part than common sense, have been rejected and unable to obtain protection for their families.

Scores of people can be found in every community who have been rejected by some life insurance company, who, by continued good health, have proved themselves good risks and have lived longer than many who have been accepted.

We are of the opinion that a very large proportion of these risks could be written with safety and profit by a proper system of rating. It has been successfully done in England for the past thirty years.

The National Mutual Insurance Co. has originated the Adjusted Rate plan and proposes to extend the benefits of a good insurance on a perfect, sound and equitable basis, to a large class of deserving persons who, for trivial reasons and technicalities carried to an unwarranted extreme, could not obtain the insurance of which they stand specially in need and provide means of comfort and happiness for those they leave behind them.

## THE CENTURY MAGAZINE IN 1893.

It would be hard for a person who cares for good reading to make a better investment than a year's subscription to the *The Century Magazine*. No region is too remote, no expense too great, if it will only produce what the *Century's* readers want. This is the policy that has made it, as the *Pall Mall Budget*, of London, says, "By far the best of the magazines, English or American."

The November number begins a new volume and contains the first chapters of a powerful novel of New York society, called "Sweet Bells Out of Tune," written by Mrs. Burton Harrison, the author of "The Anglomaniacs." In this story the fashionable wedding, the occupants of the boxes in the Metropolitan Opera House, the "smart set" in the country house are faithfully reflected, and the illustrations by Charles Dana Gibson, *Life's* well known cartoonist, are as brilliant as the novel.

In this November number begins also a great series of papers on "The Bible and Science," opening with "Does the Bible Contain Scientific Errors?" by Prof. Shields, of Princeton, who takes decided ground that the Bible does not contain scientific errors of any moment, and who most interestingly states the case from his point of view. Other articles in this series will include one in the December (Christmas) number, "The Effect of Scientific Study upon Religious Beliefs."

An important series of letters that passed between General Sherman and his brother, Senator John Sherman is also printed in November, which number contains also contributions from the most distinguished writers, including an article by James Russell Lowell, which was not quite finished at the time of his death. The suggestion which Bishop Potter makes in the November *Century* as to what could be done with the World's Fair if it were open on Sunday, is one which seems the most practical solution of the problem yet offered.

The December *Century* is to be a great Christmas number,—full of Christmas stories, Christmas poems, and Christmas pictures,—and in it will begin the first chapters of a striking novel of life in Colorado, "Benefits Forgot," by Wolcott Balestier, who wrote "The Naulahka" with Rudyard Kipling.

Papers on good roads, the new educational methods, and city government are soon to come.

Four dollars will bring you this splendid magazine for one year, and certainly no cultivated home can afford to be without it. Subscribers can remit directly to the publishers, The Century Co., 33 East 17th St., New York. They should begin with November, and so get first chapters of all the serials, including "Sweet Bells Out of Tune."

## THE OUTLOOK IN BRITISH SHIPPING.

From a recent report on English steam tonnage issued by H. E. Moss & Co., of Liverpool, the following resume of shipping is given:

"We regret we cannot pen these few remarks without referring to the unprecedented continuance of unremunerative freights and there is in consequence a general disinclination on the part of shipowners to increase their fleets, and we fear we cannot see any immediate chance of better things; the true solution of how best to relieve the congested state of the tonnage market would be the drastic plan of removing old and obsolete tonnage from the active list and to accept breaking-up prices for such property, and until this is done we fear no permanent improvement can be looked for.

It must be patent to all enquiring minds that there are probably 250,000 tons of steam tonnage of this type that cannot positively compete with the modern class of vessel, when even these latter require strictest economy and good management on the part of their managing owners to yield moderate dividends to the owners; if this is conceded the sooner realization and breaking-up proceeds the better, and then we see no reason to doubt that this important industry will again take its proud position of materially adding to our country's greatness, and yielding fair dividends to shipowners on their investments.

The government work of the last three years is rapidly approaching completion, and builders are anxiously competing for the few private orders that are being placed. In the contracts we have lately made, the prices are distinctly favorable to buyers, builders in each instance discounting the probability of an early serious reduction of wages. So many yards are now empty or nearly so, that if their leaders will only let British workmen use their ordinary common sense they must realize that their interests will be best served by joining hands with their employers in the endeavor to secure work during the coming winter. The demand for small coasting steamers has lately been unusually small; we cannot but think this branch of business should be taken up more energetically. Surely, modern steamers ought to compete advantageously against the antiquated and wretchedly owned wooden sailing ship.

We again repeat that fortunately few serious collapses have arisen during the current year and shipping property must be in strong hands to have successfully weathered the long depression lately experienced."

## THE OLD NORTHERN TRANSPORTATION COMPANY'S FLEET.

The recent wreck of the Steamer Nashua, says the Milwaukee *Journal*, calls to mind the manner in which the old Northern Transportation company's fleet of small boats are disappearing. Several years ago this company had a fleet of twenty boats plying between Lake Michigan ports and the lower lakes. They were all painted white with white-topped smokestacks, and at night each carried two headlights. The two lights were beside each other so as not to cause confusion with the practice of carrying one light above the other, which indicates that there is a tow astern. These lights were used as a private signal, so that the boats of that company could recognize each other. This system is still in vogue in the Northern Michigan line, which is in reality what is left of the old Northern Transportation company. Peter Kline, owner and manager of the Northern Michigan line was a manager of the old line when it was in existence. The two boats which run to Milwaukee weekly at one time belonged to the old fleet, the City of Charlevoix and Lawrence.

The City of Charlevoix, formerly the Champlain met with a mishap which cost several lives, among whom was Capt. Lucas, her master at the time she took fire on Traverse bay and burned to the water's edge. After the the fire she was taken to Milwaukee by Mr. Klein, her present owner, who had her rebuilt and enlarged at the Milwaukee shipyard. Last winter she received a new engine and she has proved to be a very good boat.

Several years ago the St. Albons, one of the old fleet, punctured her bow with ice while leaving Milwaukee and when fifteen or twenty minutes northeast of that port, she was found to be leaking so badly, that she had to be abandoned.

Then the Milwaukee, which was bought after the line ceased to exist and converted into a lumber barge, was run into by the propeller Hickox about thirty-five miles off Milwaukee and sank.

The loss of the Nashua with all hands was a peculiar one. Her hull, which now lies on the beach near Goderich, Canada, was found floating with a large hole in her side, which it was thought was caused by the boiler rolling out of her, thus capsizing her and drowned all on board, as none of the yawl boats were lowered.

The City of Toledo was driven on the beach at Ludington, and went to pieces several years ago, near where her namesake, the scooner City of Toledo, drowned her crew a few weeks ago. The former's engine is now doing duty in the barge business.

The Oswegatchie, another of the old fleet, was lost on Lake Huron last fall.

A few more of them were converted into barges and they have found a resting place on the beech on some of the lower lakes.

## VESSELS CLASSED.

The "Record of American and Foreign Shipping" published by the American Shipmasters Association of New York have classed during the past week the following vessels. American three-masted schooners, Mary Sprague, Madeline Cooley and Robt. P. Chandler; bark Alice, and half-brigs Daisy and Reindeer; ship Jas. Nesmith and bark Thos. A. Goddard; Russian bark Impi; British bark Geo. Battiste and British barkentine, F. B. Lovitt; American schooner, Kate, American ship, Southern Cross, American half brig, Victoria, Swedish bark, Marguerite and British three-masted schooners Annie and Clara J. Wilbur.

## WRECK RAISING.

Under the old regime a vessel that went to the bottom remained there until she was entombed in the shifting mud or sand, or else had undergone a process of gradual dissolution, hastened by the ebb and flow of tides and currents. Wreck raising was then a science practically undreamed of. Some crude operations were carried on, it is true, at several sunken wrecks, but the object aimed at was the recovery of treasure and not the raising to the surface of the vessel containing it.

The development of mechanical science and steam power has placed in the hands of modern wreck raisers machinery that has enabled them to lift many a fine ship from her oozy or rocky bed and restore her to her proper place among the floating argosies of commerce. Most of the vessels that are raised, after suffering submergence beneath the waves, are the victims of collisions or structural weakness. The chief economic purpose served by wreck raising is the keeping clear of impediments in the fairways and to repair that which is not totally lost. Sensational wreck raising attracts the attention of the whole civilized world, and many such cases where it has been thought beyond the skill of man or modern ingenuity to encompass, has taken place within the last few years.

## NOTICE TO MARINERS.

(No. 106, of 1892.)

UNITED STATES OF AMERICA—NORTHERN AND NORTH-WESTERN LAKES.

ST. JOSEPH LIGHT.—Notice is hereby given that, on or about December 8, 1892, the light at St. Joseph light-station, on the bluff in the city of St. Joseph, eastern shore of Lake Michigan, Michigan, will be changed from fixed white varied by a white flash every ninety seconds to fixed white varied by a white flash every forty-five seconds.

The order of the light will not be changed.

(No. 107, of 1892.)

GRAND HAVEN LIGHT.—Notice is hereby given that, on or about December 10, 1892, the light at Grand Haven light-station, on the bluff at the south side of the mouth of Grand river, eastern shore of Lake Michigan, Michigan, will be changed from a fixed white light varied by a white flash every ninety seconds to a fixed white light varied by a white flash every minute.

The order of the light will not be changed.

By order of the Light-House Board: JAMES A. GREER, Rear-Admiral, U. S. Navy, Chairman.

*Office of the Light-House Board, Washington, D. C., Nov. 11, 1892.*

WHITE RIVER LIGHT.—Notice is hereby given that on or about December 12, 1892, the light at White River light-station, on the south side of the entrance into White Lake and River, eastern shore of Lake Michigan, Michigan, will be changed from a fixed white light varied by a red flash every minute to a fixed white light varied by a red flash every forty seconds.

The order of the light will not be changed.

By order of the Light-House Board, JAMES A. GREER, Rear-Admiral, U. S. Navy, Chairman.

*Office of the Light-House Board, Washington, D. C. Nov. 12, 1892.*

## CANADIAN SHIPBUILDING.

The Hamilton Bridge Co., Toronto, manager John McNicol, have now under contract the construction of a large steamer for the Niagara Navigation Co.

Captain Simpson, of the Owen Sound shipyard, has contracted with Thomas Marks & Co., of Port Arthur, Ont., for a large freight steamer.

Charles and Augustine Cantin, Montreal, are building a powerful steel tug 105 feet in length, to the order of the Kingston & Montreal Forwarding Co.

## ELECTRIC TORPEDO BOATS.

The torpedo boat is one of the weapons upon which we are to rely in the next great naval war, and men-of-war are provided with second-class torpedo boats, which are to be hoisted out and detached when occasion arises. It is obvious that one of the great requirements for boats built for this service is that they should be always ready for work. With a steam launch some delay must be incurred in raising full pressure of steam, even if the launch boiler be fed with live steam from the main boilers. The electric torpedo boat can be changed from the dynamo, which is now a necessary part of every steamship's outfit, during times when there is slackness in the demand for steam and when few lamps were switched on.

The coast of the charging is therefore reduced to a minimum, but this recommendation is one of the least important, because in estimates for war purposes economy is a very secondary consideration. The great recommendation is that she is always ready. Once charged she remains on duty, and when the call comes she has to be put afloat and the starting leaver put over. She is thus enabled to go full speád ahead on touching the water, and this is a very great consideration. The difficulty at present in the way is that of speed. The data available to the public respecting small steam vessels is very meager. We can easily find out particulars of the engines, consumption, and capacity of ocean steamships, although sometimes the figures are mere approximative; but the builders of little boats keep the particulars of weight of machinery and amount of consumption of coal very much to themselves. Then, too, the electric launches hitherto built have not gone in for great speed.

Those built for pleasure purposes, for example, are limited in speed, and the builders of craft for this traffic are therefore obliged to find an outlet for their ingenuity by trying to decrease the weight of their machinery and increasing the length of time during which a vessel may run before her charge is exhausted. Thus at present we cannot pretend to give any accurate details regarding the weight of electric machinery to drive a second class torpedo boat at the speed where her steam engines now take her. This, however, seems certain—she could be driven at her present speed in the present state of electrical science, though her endurance would be less with electricity than with steam. This is, of course, a disadvantage, but it must be remembered that in an attack by a boat of this kind, detached from a man-of-war, the time during which she would be required to be under way would be under way would be very short.

The attack would probably consist of a rush forward and a rapid retreat to the shelter of her convoy. Against this disadvantage must be placed the constant readiness to which we have already alluded, and also another advantage, which is of scarcely less importance viz., the absence of smoke and glare. During the recent naval maneuvers it was a constant complaint that when pressed to full speed a flame appeared above the funnels of the torpedo boats in spite of all efforts to prevent it, and that this, of course, gave fatal indication of their whereabouts. The whole value of an attack could be lost if such a warning were given in actual warfare, and the electric launch could give no such sign.

## A LATE SEASON PROBABLE.

While the smaller boats engaged in the lumber trade are now preparing to go into winter quarters, the big craft engaged in the grain, coal and iron ore trades will remain in commission with but few exceptions until winter stops lake navigation. Iron ore shipments from the Lake Superior region for 1892 will be about 11,000,000 tons, and it is estimated that shipments next season, including the new Mesaba iron range of Minnesota, will cause a total movement in 1893 of 13,000,000 tons. At Conneaut, Ohio, a new port has been opened and $300,000 expended in ore and coal docks, which are connected with the iron and coal districts in the vicinity of Pittsburgh by the new Pittsburgh, Shenango & Lake Erie railway. The first cargo of ore has been delivered at these docks and it is estimated that they will handle 500,000 tons of ore next season.

As the close of business for the season approaches, freight rates have improved, and another round trip at least is being figured on. Owners are generally planning to run their boats up to December 5th, when insurance at regular rates expires. If the Straits of Mackinaw remain open later than that date, as they have for two or three seasons past, boats are likely to continue to run even later. The lines which have an immense amount of flour to take east and general merchandise to bring back are figuring on keeping their boats in commission until about December 10th, unless the Straits freeze up earlier. Certainly all will be taken out of the season by the freight steamers that it is possible for them to earn until the ice prevents further transportation.

# The Marine Record,

ESTABLISHED 1878.

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CLEVELAND, O., NOVEMBER 17, 1892.


OUR esteemed contemporary, *Seaboard*, of New York, seems to have no compunction about ascribing the foundering of the lake built steamer W. H. Gilcher to actual stress of weather. In view of the fact that the wreckage of a schooner has been found along the beach in close proximity to the upper works of the Gilcher the inference is almost beyond a doubt that a collision occurred. Will *Seaboard* please call to mind the sinking of the Cunard Steamer Oregon off Fire Island, before assuming the authority of a wreck court of inquiry.

THE singular impression that lake-built ships can or should discount other ships of similar dimensions in their cargo-carrying record or ability, through the genius of the designer, or on account of other not to be explained ship-yard handiwork, has about exploded and in the future we may look for an accurate statement of a ship's carrying capacity as soon after the contract is signed as the builders desire to make these particulars known. Certain dimensions have a limited capacity and any departure from the certainty should not be permissible.

THE time-honored custom of ordering the man-at-the-wheel to port when it is desired to swing the vessel's head, or direct the course to starboard, and *vice versa*, is meeting with the attention that the importance of the case demands from nearly all maritime powers, except Britain. Should any alteration in the method of rolling the wheel be made uniform and compulsory, as recently agitated on the lakes on account of the different styles in reeving the wheel ropes, it would also be well to let port mean port, that is, the ship's head to be directed according to the order given. Even with straight chains the order is contradictory, and it is this feature which is now being dealt with by European nations.

### A RECENT LEGAL DECISION.

We take pleasure in printing in full in this issue the recently rendered opinion of Judge Swan, of Detroit, in the Conemaugh-New York collision case; the more so because some persons apparently interested in the New York, or perhaps somewhat jealous of the fine reputation of the counsel that presented the case for the Conemaugh allowed the lake dailies to publish what seemed to us a boast at the defeat of an important marine law case wherein no rebuttal evidence was introduced, thereby assuming from the judgment rendered by Judge Swan that Messrs. Goulder, Shaw and Wright, after putting in all their evidence and proof, had met a defeat through the other side resting their case without introducing any testimony.

A perusal of the opinion shows to our mind reason enough for the attorneys of the New York keeping their witnesses in the background, when the proofs showed against the New York faults "so many and flagrant that it may be doubted if judicial records afford a parallel to the negligence and recklessness of her navigation." This is a very strong quotation from the judge's opinion, and it was no doubt good generalship for the attorneys of the New York to avoid a cross examination, especially such a one as Mr. Goulder could give the men who had engaged in that kind of navigation. If nothing could palliate the faults a cross examination of the New York's witnesses would simply have made them appear more glaring and lubberly.

Evidently the difficult point inherent in the case is an extremely interesting one, and if the counsel for the Conemaugh strengthened their evidence to prevent condemnation of that steamer for not reversing at the critical moment, they seem to have all but succeeded in establishing the right of action. However, we predict that the verdict of the judge in holding both vessels to blame will not meet with the approval of thoughtful, practical seamen, as the very element of mutual transgression argues an unfounded weakness in the decision of nearly all such cases.

It is easy to see after a collision has happened what might have been done. Judges and lawyers, underwriters and sometimes even owners are over ready to criticise the actions of the master in the handling of his vessel. The master of the Conemaugh apparently did not dare to back or reverse his engines, even if he had thought of doing so, as we may presume he did, for as Judge Swan says, he had a right to expect that the New York would resume her course again after clearing the stern barge. After that the time and distance were so short and the forces were so great, that it does not seem to us that the conduct of this master is even open to criticism in favor of a steamer whose officers and crew appear to have been so criminally reckless and negligent that their counsel dare not call them to even offer evidence in the attempt to palliate their many offences against the ordinary practice of navigation, including, of course, the skillful handling of their vessel.

The court appears to condemn the Conemaugh in this case with great reluctance, and, from the opinion rendered, it seems to us that there was not a loophole of escape from the entire loss falling on the New York. However, we yield the greatest respect and deference to Judge Swan, and he may be right as a mere question of law. Practically, we think the decision wrong, according to the evidence rendered and the Judge's summing up of his opinions, and we cannot refrain from saying that the Judge seems to have allowed precedents to have somewhat affected his decision in the mutual fault part of it, after scoring the New York so righteously, though rigorously, and perhaps had the Judge gone on his own independent judgement, positive and more conceivable equities would have resulted in this important case.

The fact that the collision occurred, evidenced a failure of the observance of the "rules of the road," and the origin of the trouble should in all cases be more clearly defined than has hitherto been the case. A split judgment, involving mutual blame, is now being considered a valueless result, after hearing closely sifted evidence, and in this important case the lake marine would no doubt have been widely benefited by the introduction of a brisk technical cross examination of witnesses, such as Mr. Goulder might have entered into with the witnesses of the New York. Technical or professional errors of judgment require publicity so as to warn others of their approach, and a source of education lies in the perusal of the evidence given, argument of counsel and opinions or decision of judges, in all maritime cases.

### ON THE PLACING OF SIDE-LIGHTS.

Side-lights are now carried anywhere from the knight-heads or from about the gammon lashing on the bowsprit, to the mizen rigging or quarters. A well-known, and one of the best managed lines of lake vessels, have their side lights placed on either side of the heel of the jibboom. Side-wheel steamers not unfrequently carry their lights in screens fitted on their paddle-boxes (the upper works covering the side-wheels). The majority of vessels carry their lights at a position about abreast of the foremast, and it is quite a frequent occurrence to find the lights, perhaps more especially in Nova Scotia and Italian ships, carried in screens fitted on small quarter davits, while a large number of ocean and coasting steamers carry their side-lights at either side of the bridge, nearly amidships of the vessel there is no regular or customary point on the hull of a vessel from where the lights should be exhibited according to law.

The question of visibility of arc over which the ordinarily fitted side-light would show, has been dealt with from time to time in these columns, and the rules, which are as follows, quoted on the subject:

"Side-lights shall be fitted with in-board screens, projecting at least three feet forward, so placed that the lights may not be seen across the bows. The lights shall also show over an arc of the horizon of ten points of the compass, that is to say, from right-ahead to two points abaft the beam."

This placing of the lights has been accepted as an international custom, yet, it is clear that side-lights are not now being carried by hardly any tonnage afloat so as to conform with the law. If exhibited from light-houses on the top-gallant forecastle is the right place, then the screens out in the fore rigging are entirely misplaced, and the same may be said of all lights, except those carried on either side of the heel of the bowsprit, as mentioned in the foregoing.

The usual, ordinary and world-wide system of arranging screens, allow them to be placed parallel with the line of keel, but nothing is said regarding the distance they may be from the midship line of vessel, or being on a vertical line with the keel. Therefore, to better elucidate our writing at this time, we may assume the side-lights to be placed in conformity with the present custom, on outriggers, and screened parallel with the line of keel, but at a distance of one or two hundred feet from the same, thus representing, and to show the error magnified, an impossible beam. These outriggers placed at any point of the hull would not permit of the side-lights being seen right ahead, but would leave a dark lane covering the distance between the screens, or beam of the ship; and the same is true, but in a minor degree, where the lights are placed and properly screened on the side of the hull.

Captain Murch, of the Northern Line of lake steamers, made a custom of adjusting all side-light screens while in port, thus ensuring the side-lights being seen right ahead, but we are not in a position to state that the lights so adjusted were visible 22° 30′ abaft the beam, or that the rays of light did not cross at some distance ahead of the vessel.

The authority, origin and most expert code of "rules of the road" are no doubt to be credited to the English Board of Trade, and it is with some degree of reluctance that we find so gross a failure in the wording of the rules on lights, now universally adopted. Finding that the lights placed as authorized by law did not fulfill the conditions expected, the British are now angling the screens so that the rays from each side-light may converge at a certain distance ahead of the vessel. This may be clearly determined when a vessel is lying still at a dock, but there is an element of danger in trying to place the screens in this manner when the vessel is under way. A collision suit may not unfrequently hinge on the correct bearing of lights, and indeed it is a salient point in all cases of collision, therefore, too much importance can not be attached to the proper adjusting of the light screens so that the side-lights may be seen only from right ahead to two points abaft the beam, and occasional attention should be given to see that the screens, maintain their proper angle while in port. This may be determined by an observer taking a compass on shore and measuring the angle over which the light is expected to show, otherwise, it would be more than difficult for any deck officer to vouch for his side lights being placed so as to show over an arc of the horizon contained within ten points of the compass, from right ahead to two points abaft the beam, yet, much depends on the correct bearing of the colored side-lights, and there is no navigable waters wherein a stricter attention is necessary to this feature than on the crowded, narrow waterways connecting the Great Lakes.

The half point ahead covering the dark lane over which the side-lights may not now show is of course minimized by the yawing of a vessel, yet even this may be an element of danger, as by the shutting out of both lights or the sighting of only one, an approaching vessel might reasonably consider that the collision point either did not exist or was past. In any case all practical seamen will agree, not only that the utmost skill should be exercised in the proper and careful placing of all side-lights but also that the best possible lights should be used in these valuable night guides.

### THE FREIGHT SITUATION.

The ore rate from the head of Lake Superior rules at $1.35, although during the week, two or three charters, which included special arrangements, have been made at $1.40. The regular rate does not seem likely to go higher during the remainder of the season, as most of the ore firms have already arranged for the transportation of the final cargoes. The Escanaba rate is 90 cents, but will doubtless advance, as even at this time the ore is frozen so badly as to cause delay in loading.

The Duluth wheat rate remains at 4 cents, with some some slight hopes of an advance, but at Chicago the rate dropped back to 2½ cents.

Coal rates remain at 75 cents to Chicago, and 70 cents Milwaukee. To Green Bay and the Sault 75 cents has been paid, and three or four boats have received 50 cents on final cargoes to the head of Lake Superior. No advance to the rivers or Lake Huron ports are recorded, but the rate to Detroit is 30 cents, and to Toledo 40 cents.

The season for lumber boats is rapidly drawing to a close. The rates quoted last week will probably prevail until the finish.

The French Government gives instructions for the preservation of tubulous boilers when not in use. They should be completely filled with water, the acidity of which has been neutralised by the addition of lime or soda. Externally the tubes should be painted, where accessible, with red led or coal tar, but such parts as cannot be got at for this may be preserved by burning coal tar under them. The smoke of the tar is condensed in the cold tubes and forms there a protecting layer which prevents corrosion.

L. L. Burton, of Burton, Calbick & Cook, vessel and insurance agents, died last Monday in Chicago of pneumonia. Mr. Burton was thirty-one years of age and has been in the marine insurance business all his life. In 1885 he was made partner in the Detroit firm of J. C. Burton & Son. Last spring he went to Chicago as general agent of the Cincinnati Underwriters. His father, J. C. Burton took the remains to Ypsilanti, Mich., for burial. Mr. Burton leaves a wife but no children.

## FLOTSAM, JETSAM AND LAGAN.

The schooner Flora Carveth, which went ashore near Sodus, Lake Ontario, has been released and taken to Oswego.

The mystery of the wreck floating bottom up on Lake Michigan is still unsolved, as the over-due Cuba has reached Sheboyan.

The fleet of the Inter-Ocean Transportation Company, engaged in carrying ore from Escanaba to South Chicago, is now going into winter quarters.

The Canadian schooner Neelon is high and dry on Manitou Island. She broke away from the steamer Tilley in the gale last Monday week and will probably be a total loss.

The five lake disasters of the season in which loss of life was greatest aggregate the fearful death-list of eighty-two people, divided among the vessels Western Reserve, W. H. Gilcher, City of Toledo, Nashua and schooner Ostrich.

The schooner L. Seaton loaded with hemlock ties for Sandusky, was wrecked at Point aux Barques since our last issue. She was owned by Capt. Wm. Christie, who sailed her and was insured for only $1,000 and valued at $3,500.

Capt. George McLeod has abandoned the Canadian schooner Marquis, which stranded at Forrest Bay, near Sand Beach, on Saturday, as a total loss. The schooner went to pieces. She had a cargo of stone for the Canadian locks at the Sault.

Inquiries for missing men are now generally directed toward the unfortunate steamer Gilcher. Mrs. Thomas Colford, of No. 163 Antoine Street, Detroit, writes to know if her husband was not second engineer of the Gilcher, as she is informed; and a friend of Joseph Mack at St. Thomas hears that he was assistant cook of the Gilcher.

The schooner Hercules, owned by Finley McGibbon, of Sarnia, has been lost. The vessel cleared from Penetanguishene with a cargo of lumber for Sarnia and on Wednesday was nine days over-due. The Hercules was commanded by Captain Joe Glass and carried a crew of six men. The schooner carried about 275,000 feet of lumber and was valued at $4,000. The crew, excepting the cook, were all saved.

The rush to get early storage in Chicago this winter has not yet begun, but vessels are making all possible arrangements to get there at the end of the season. Several tows are taking coal this week to hold there till shippers want it. The tows of the Oades and the Ralph are in this list. Though they might come down again they prefer a certainty of this kind to the risk of not getting back to Chicago again for winter.

Wreckers were driven away from the schooner E. B. Palmer, ashore near Alpena, by hard weather when a few hours work would have saved her. The schooner is now a total wreck, and the two steam-pumps, owned by Gilchrist, of Alpena, which were on board, are in the lake. The Palmer was owned by Gillette of Marquette and was insured for $4,000, mostly in Detroit companies. Her cargo of stone, worth $4,000, was also insured.

## PATENTS FOR MARINE DEVICES.

The following patents for marine uses has been granted this week:

Boat, E. Lachmann, Berlin, Germany.

Boat keel, J. Cook, New York, N. Y.

Boiler tube cleaner, W. B. & J. R. Smith, Birmingham, Ala.

Propeller, S. W. Barnaby, London, England.

Steam generator, T. Fearon, Yonkers, N. Y.

Boiler, H. Martin, Sotteville, France.

Folding boat, M. L. Suree, Miamisburg, Ohio.

## MORE NEW LAKE TONNAGE.

A contract for the construction of a new passenger steamer to trade next season between Chicago and Holland, Mich., was entered into last Monday. The new boat will cost $30,000, will carry 100 passengers and will have a keel length of 145 feet. She will be built at Saugatauck, and will be taken to Holland, Mich., next March to be completed. The owners will be local capitalits of Holland and Saugatuck. The steamer will be named The City of Holland.

Hon. F. W. Wheeler, shipbuilder of West Bay City, while at Cleveland last week closed a contract with M. A. Bradley and Geo. Warmington for a large wooden schooner to be a consort for the steamer R. P. Ranney.

The Union Dry Dock Company, of Buffalo, has the plans and specifications for a new steel passenger steamer on which a contract is expected on the approval of the owners. The steamer will have cabins for 150 passengers and considerable freight capacity. She is to run from Buffalo to Lake Erie ports. As the contract is not yet signed the names of the owners are withheld. This makes five boats to be built by the Union Dry Dock Co., although our recent table of new tonnage credited no work to this shipyard, the several contracts having been signed during the last three weeks. It is surmised that this latest order is for the Lake Erie Transportation Co., three being tugs.

## MARITIME LAW.

STEAMERS NEW YORK AND CONEMAUGH.—ON LIBEL-LANT AND CROSS-LIBEL FOR COLLISION.—IN ADMIRALTY.

*In the District Court of the United States for the Eastern District of Michigan.*

Messrs. Shaw & Wright and H. D. Goulder for the Conemaugh. Mr. Charles E. Kremer and Mr. H. C. Wisner for the New York.

The original libel in this cause was filed by the owner of the Conemaugh to recover damages for the sinking of that steamer by the propeller New York, October 21st, 1891, in the Detroit river, a short distance below Sandwich, Ont. The New York also received injury for which her owner filed a cross libel against the Conemaugh. The cases were heard as one. No proofs were offered on the part of the New York.

The circumstances attending the collision are as follows: The Conemaugh, a screw steamer of one thousand six hundred and nine tons burthen register, and laden with eighteen hundred tons of flour and general merchandise, was on her way from Milwaukee to Erie, Pa. She had a full watch on deck and her lights were properly placed and burning brightly. Between seven and eight o'clock p. m. of October 21st, 1891, the night being clear and the weather fine, she had reached the vicinity of the Kasota piles—the remains of a coffer-dam used in raising the steamer Kasota, which had been there sunk—which were on the American side of mid-channel and about three-quarters of a mile above Smith's coal dock, hereinafter mentioned. At this point the Conemaugh received a signal of two blasts of the steam whistle of the steamer Burlington, which was bound down, having a tow of four vessels, and at that time was rounding-to at Smith's coal dock, on the American side, for fuel, and exhibited her mast-head and green lights to the watch of the Conemaugh, who also saw the green light of the first vessel in tow as she followed the Burlington around, and cabin lights on other vessels of the tow.

The Burlington and tow in their revolution formed a crescent whose westerly point was the coal dock, while its easterly end was further up the river and near the Canadian shore. The Conemaugh answered the Burlington's signal with two blasts, her helm was put hard astarboard, her speed immediately checked and she swung across the stream, a short distance below the Kasota piles at an angle of about eight points from her former course. Finding that she was heading above the stern vessel of the tow, the Conemaugh's wheel was steadied and then ported to follow the tow, which in circling around occupied most of the navigable channel, leaving a passage on the Canadian side or tow's port side. About simultaneously with the steadying of the Conemaugh her master saw below the tow about a mile away, the bright and red light of an ascending steamer which proved to be the New York, then somewhat on the American side of mid-channel, and promptly gave her a passing signal of two blasts of her whistle. To this no answer was made by the New York. When the two steamers were about three quarters of a mile apart the Conemaugh repeated her signal, the New York then showing her masthead and both colored lights. No reply was made by the New York to this second signal. The Conemaugh still exhibiting only her masthead and green light, and heading about four points towards the Canadian shore from a direct course down the river, sounded a third signal of two blasts, the New York continued to show all three of her lights and being then apparently between and close to the port hand of the second and third barges of the tow. The last barge in the tow was at this time a little forward of the starboard beam of the Conemaugh, about three lengths, say eight or nine hundred feet below her, and the same distance from the Canadian shore. The New York made no answer to the Conemaugh's third signal, nor did she reduce her speed. About this time the Conemaugh, still running under check, steadied from the port helm and almost simultaneously lost the green lights of the New York, whereupon she sounded an alarm of several short blasts of her whistle, and put her wheel hard astarboard. The New York running at full speed, was then about mid-way between the third and fourth barges of the tow, while the Conemaugh had just crossed the wake of the stern barge, the Ferguson. The two steamers were then on converging courses about a quarter of a mile apart. The Conemaugh kept on at full speed with her wheel hard astarboard, showing the New York her masthead and starboard light only, while the New York came up the river, still at full speed, under a port wheel, displaying her masthead and port light to the Conemaugh. Just before the collision which naturally resulted from these courses, the wheel of the New York was starboarded, but too late to avert the collision, and stem on she struck the Conemaugh on the starboard bow, sinking her within ten minutes. *The evidence concurs that the vessels came together on the extreme easterly side of the channel, scarcely a length from the place where the Conemaugh sank, and about* 900 *or* 1,000 *feet from, and a little on the port quarter of the Ferguson, the stern barge of the Burlington's tow.* The amount claimed by the libel for the injuries to the Conemaugh, the expense of raising and repairing her, and the demurrage necessary for repairs, together with the damage done to her cargo is seventy thousand ($70,000) dollars. The cross libel alleges that the New York suffered damages to the amount of three thousand ($3,000) dollars.

The answer of the New York admits that her watch heard neither the first or second signals of the Conemaugh. It further states that when the New York had arrived at a point abreast of the last barge in tow of the Burlington, a signal of two whistles was heard, but being unable to see any vessel, and noticing only a white light close on the Canadian bank of the river, a signal of two blasts was not answered, as it seemed intended for some other vessel. It is also alleged that the speed of the New York in passing the tow was but four miles an hour, but the proofs establish that she maintained double that speed until the vessels came together. *The faults of the New York are so many and flagrant that it may be doubted if judicial records afford a parallel to the negligence and recklessness of her navigation.* The admitted facts that her officers did not even hear the first of the signals of the Conemaugh, and though their attention was challenged to her by her third whistle, did not see her until the alarm whistle was sounded, when the vessels were scarcely a quarter of a mile apart, although the weather was favorable to sight and hearing, and the condition of the locality called for careful navigation, are conclusive that *her master and lookout (if she had one) were either incompetent or grossly negligent of their duties.* If her lookout saw and reported the lights of the Conemaugh his exoneration makes the conduct of the master or other officer of the deck in disregarding that warning more reprehensible. The Conemaugh's whistle was loud and coarse and her lights lawfully placed and burning. *Nothing can palliate the negligence which failed to notice either.* If the master was at his post or giving attention to his duties he should have heard or seen the descending steamer despite the negligence or even the want of a lookout, for the lights were seen and the signals heard by the crew of the Burlington and her barges and by persons at the coal dock who were at a greater distance from the Conemaugh than the New York. *Even after the Conemaugh was seen and heard the action of the New York merits the severest condemnation.* Invoking against the Conemaugh steering and sailing rules 19 and 21, the New York neither held her course as required by the first, but by porting thwarted the effort of her adversary to keep out of her way, nor slackened speed, stopped or reversed in compliance with rule 21, when the course, position, lights and alarm whistles of the Conemaugh proclaimed the perilous proximity of the steamers, but kept her speed to the very instant of collision. *Under the circumstances these offenses were scarcely less vicious than the criminal negligence which disregarded the lights and the signals of the Conemaugh.* The temporary departure of the New York from her general course up the river was necessitated by the position of the Burlington's tow. When she passed that and saw the Conemaugh, it was her duty to starboard and resume her course as soon as possible, having regard to the exigencies of the situation. (The John L. Hasbrouck. 93 U. S., 405–410.) There was ample room for her to have obeyed this requirement, which would have taken her under the stern of the Conemaugh. *The master of the Conemaugh had a right to expect that this plain duty would have been performed, for his vessel had then crossed the proper path of the New York.*

A fitter case for the exercise of the disciplinary power committed to the inspectors of steam vessels than that afforded by the navigation of the New York can scarcely be imagined. Revocation of the license of the master, or an extended period of suspension would have a salutary effect in promoting the safety of life and property on the lakes. The case of the New York is without a shadow of a defense.

2. Was the Conemaugh guilty of fault contributing to the collision?

The argument in her behalf, conceding that if the collision occurred in the proper course of the New York the Conemaugh must be held in fault, because having the New York on her starboard side she failed to keep out of her way, insists that if she was at a safe distance from the New York's lawful course when struck, then her measures to avoid the latter were timely and sufficient, and the New York shall be held solely in fault, for thwarting, by her unlawful change of course to starboard, the otherwise safe undertaking of the Conemaugh; that the presence of the tow, the distance between the vessels, and their positions and courses when the alarm whistles were sounded, justified the Conemaugh in starboarding to perform her statutory duty under rule 19, and this granted, the place of collision is conclusive of the sole liability of the New York. While rule 19 is absolute that the steamer having on her starboard hand another whose course she is crossing, must keep out of the latter's way, it does not define the course to be pursued to effect that end. To diminish still further the risk of collision between the steamers thus approachiug, the supervising inspectors under congressional authority adopted rule 2 of the Pilot Rules for the Lakes and Seaboard, prescribing that such steamers "shall pass to the right of each other as if meeting head and head or nearly so, and the signals by whistle shall be given and answered promptly as in that case specified." In the conditions to which it applies this rule is to be read into rule 19 of the Steering and Sailing Rules (U. S. Rev. Statutes, Sec. 4233). Yet as declared by the inspectors themselves it is not a rigid and invariable regulation, but is "to be complied with in all cases except when steamers are navigating a crowded channel or in the vicinity of wharves," and is of course also qualified by rule 24 (U. S. Rev. Stat. Sec. 4233) providing that in construing and obeying the rules "due regard must be had to all dangers of navigation, and to any special circumstances which may exist, etc." As it does not absolutely impose on the steamer having another on her starboard hand the duty of porting under all circumstances, it is not inconsistent with the steering and sailing rules. (The Atlas, 4 Ben. 27.)

These steamers were "navigating in a crowded channel" and that fact exempts the Conemaugh from the obligation to port under Pilot Rule 2. The New York in coming up necessarily held her course close to the descending tow, passing within 50 or 100 feet from the fourth vessel, and only attained that distance by a sharp sheer to the starboard when abreast of the Amaranth, the third vessel in the tow. At that time the Conemaugh was under the stern of the Ferguson. She had crossed the New York's proper course and the position of the latter in reference to the Burlington's tow left her no room to pass between the New York and the tow. The attempt would have been imprudent and at the hazard of the collision with both the descending vessel and the tow. There was moreover an unobstructed channel six or seven hundred feet wide on the starboard side of the New York. The Conemaugh also had a right to assume that the New York on clearing the tow would perform her duty and resume her normal course. (The Free State, 91 U. S. 204.) The Scotia, 14 Wall., 170.) Under these circumstances, the Conemaugh with three-fourths of the channel occupied by the tow, though crossing the course of the New York, was not under the rule of the port helm, but might properly continue her course, provided there was time and room for

that maneuver. And if the cases involved only the construction of rule 19, the proofs would be conclusive that the only breach of that rule was committed by the New York in failing to pursue her lawful way after passing the tow, but instead thereof swinging to starboard and keeping on until she had overtaken the Conemaugh. Had the New York, after seeing the Conemaugh even, held the course on which she was passing the tow, collision would have been impossible though she maintained her speed; but although the Conemaugh had crossed the lawful path of the New York she had not cleared her actual course which was indicated by the disappearance of the New York's green light between the Conemaugh's third signal and her alarm whistles. Up to the Conemaugh's second signal her navigation had been cautious and in exact conformity to the statutory and inspectors' rules. With a full watch and running under check, displaying proper lights and sounding her whistle seasonably and repeatedly, she exhausted effort to herald her presence, position and purpose. Even to the giving of her third signal the only criticism made of her conduct is based on the inspector's rule 3, that though under check she was not slowed to a speed barely sufficient for steerage way." Although the vessels had then approached to within a half mile of each other and no understanding had been established with the ascending boat, this, however, though an infraction of that rule, had no relation to the collision, for the vessels were then so far apart, and on such courses and held such relative positions to each other, and the tow, that without risk of collision the Conemaugh would have safely crossed the bows of the New York had the latter held her lawful way. But when the New York shut in her green light, its disappearance announced, and the alarm whistle of the Conemaugh acknowledged risk of collision, which imposed on each in their then dangerous proximity the duty of stopping and reversing. Both were knowingly under the operation of rule 21, on courses involving risk of collision. The fact that the New York had not responded to either signal, but was drawing near at full speed with the eyes and ears of her watch closed to the presence and purpose of the Conemaugh; despite the warnings of her lights and signals called for the extremest precautions on the part of the latter, and should in some measure have prepared her for the necessity of their instant adoption. It is said that the silence of the New York was not conclusive evidence that she had not heard the signals of the Conemaugh, for notwithstanding Pilot Rule 6, expressly requires that passing signals by whistle shall be given and answered, "at all times when steamers are passing or meeting at a distance within half a mile of each other, and whether passing to starboard or port, the rule, it is a matter of common knowledge, is often violated, despite the fact that failure to obey it has frequently been held the ground of a condemnation of the offending vessel (The B. B. Saunders, 19 F. R. 118.) (The Guardian City, F. R. 533.) (The W. H. Beeman, 18 F. R., 334.)

The presumption of law, however, is that the non-observance of the rule by the New York was not willful. Moreover, under the circumstances, should the prevalence of this illegal practice be received to excuse noncompliance with articles 21 and 24 of the Steering and Sailing rules? If it was prudent to check speed when approaching a tow moving in the same direction, the necessity of still greater care when she was about to meet and cross the course of a steamer rushing up the river, at full speed in evident ignorance of the presence of a descending vessel, was infinitely more obvious and urgent. Though not called upon to stop when no response was made to her passing signal, because she had the tow between herself and the New York, and there could be on collision while that was the case, yet when the Conemaugh emerged from that shelter, she did so with the knowledge, or at least reason to believe, that her pressence was unknown to the New York and that the safety of her advance was contingent on the latter's adherence to her course, which, though, probably was not assured, because the Conemaugh apparently was not a factor in her navigation. The Conemaugh, therefore, could not safely proceed in the expectation that the New York would obey rule 19 and hold her course in the absence of knowledge on her part that there was a vessel in the vicinity, to whom she owed that duty. The steering and sailing rules governing the course of vessels meeting in various situations contemplate that each knows the facts upon which it is called to act. If one alone has that knowledge and perceives or has reason to believe that the other has not, she can justify proceeding on the course prescribed for the situation, and in the event of collision ask the determination of the controversy by the rule of that course alone, regardless of the cognant rules of navigation. These rules are all qualified by article 24, which enjoins due regard to the dangers of navigation, and in special circumstances rendering the departure from them necessary to avoid immediate danger. There could scarcely be a greater "danger to navigation" than a large steamer approaching at full speed in the night time in the apparent ignorance of the presence of another. Each is a menace to the safety of the other, because their co-operation to a safe course is impossible. Under such circumstances, rules 21 and 24 are of paramount force. They condemn the effort of the Conemaugh to cross the bows of the New York without first obtaining a recognition, and for failing to stop and reverse in so grave a peril as that produced by the New York's speed and change of course. And they and rule 19 condemn the New York for changing her course and failing to stop and reverse when she saw the Conemaugh. In such a situation, failure to stop and reverse is an almost unpardonable sin against the maritime code. (The Manitoba, 2 Flipping, 241, S. C., 122 U. S. 97. The Stanmore, L. R. 10 P. D., 135. The D. S. Gregory and the Washington, 2 Ben., 226-236.

It is strongly urged that this error had nothing to do with the disaster. That conclusion would require for its support clear proof not merely that the violation of rule 21 did not probably, but could not have contributed to the collision. (The Pennsylvania, 19 Wall., 125. The Fenham, L. R., 3 P. C. C. 212, Ths Richelieu & Oct. Nav. Co. vs. Boston Ins. Co., 136 U. S., 408, 422.) The proofs have not this force to leave it as doubtful whether the Conemaugh could have been stopped in time to avert the collision. The master whose ingenuous and straightforward manner on the witness stand commends his testimony, frankly stated that he could not say whether or not that could have been done. The fact that the Conemaugh was struck abreast of the pilot house about thirty (30) feet abaft her stem is persuasive at least that had she stopped she would have escaped the blow inflicted by the New York, though the New York might not have been so fortunate.

The severe rule which makes the transgression of the statute prima facie a contributory cause is, however, not infrequently relaxed, and the most forcible consideration urged for the acquital of the Conemaugh is founded on the indulgence of the courts to an error committed by a vessel which has been brought into immediate jeopardy by the fault of another. In such a case, the injured party is not debarred from the recovery of damages if his vessel has done something wrong and has not been maneuvered with perfect skill and presence of mind. Instances of the application of this doctrine are: New York Co. vs. Rumball, 21 Howard, 383. The Nichols, 7 Wall., 656-666. The Carroll, 8 Wall, 305. The Elizabeth Jones, 112 U. S., 526. The Maggie J. Smith, 123 U. S., 355. The Bluejacket, 144 U. S., 371-391. The Bywell Castle, L. B., 4 P. D., 219.

The argument is that the effort of the Conemaugh to keep out of the way by starboarding was justified by the circumstances which constitute the exception to pilot rule 2, namely, the obstruction created by the tow and the danger of her attempting to pass between it and the New York, and as the Conemaugh had not every requirement of prudence and the rules of navigation up to the instant of the New York's unlawful change of course, her failure to stop and reverse in the sudden emergency thereby produced, should be held an error *in extremis*. If the Conemaugh had come in the position in which she was passing when the New York ported, *under assurances from the latter that the Conemaugh's presence was known*, it might well be claimed that the circumstances disarmed the master of the latter of suspicion of danger, and entitled the Conemaugh's advance to the most lenient judgment. But such was not the case. The very vigilance of the Conemaugh as she neared the path of the New York recognized the danger of the situation before the New York ported, and her master frankly admits that after she ported he thought "there wasn't much chance to get away from her" when the Conemaugh starboarded hard just after sounding her alarm whistle. The apprehension that if the New York should accept and act upon the passing signals by stopping and reversing, the Conemaugh would have been "in the road of the New York," cannot be admitted to justify the failure to take that precaution. *There was nothing to suggest the probability of such action on the part of the "New York,"* but on the contrary her actual course negatived the supposition. There could be but one result if both vessels persisted in going ahead. Every instant of advance made this more manifest. Stopping, even if not an assurance of safety, was manifestly less dangerous than a race for the point of intersection which at furthest was not over seven hundred feet away. It is true that a master is entitled to have time to comprehend the exigencies of the situation before he can be held to have transgressed its laws. Or to quote the language of the Court: in the Emmy Hess (L. R. 9, P. D., 81) approved in McLaren vs. Campagnie Francaise, (L. R. 9, App. cases, 649), and the Beryl (L. R. 9, P. D. 137-138). "A man must have time to consider whether he should reverse or not. The Court is not bound to hold that a man should exercise his judgment instantaneously. A short—but a very short—time must be allowed him for that purpose." The conditions in this case preceding the "New York's" change of course were as has been said preparatory and cautionary. They so plainly forbade experiment that the duty of stopping and reversing needed no consideration. It seems to me it should have occurred to the officer of the deck before his vessel had run a length.

The equities of the case are so strongly in favor of the "Conemaugh" that the conclusion that she was also in fault has been reached with reluctance, and not without considerable doubt in view of the extent to which adjudged cases of high authority have gone in referring collisions in circumstances not unlike these, solely to the fault of the flagrant transgressor. The great disparity of fault has intervened and received the consideration it merits. But the necessity of enforcing the great commandment of the law of navigation which calls a halt when risk of collision is inevitable, compels me to judge both vessels at fault, and a decree will be entered to that effect and the usual order of reference to a commissioner to ascertain and report damages. The costs will be equally divided.

The italics in the foregoing opinion are ours and the judgment is further criticised on page 8 of this issue. (ED.)

## SHIPBUILDING IN NORWAY.

Dr. Frithjof Nansen's vessel for his North Pole expedition was launched October 26th, at Larvik, Norway. The hull shows no beautiful lines, but gives impressions of great strength and seaworthiness. At the launch Dr. Nansen, accompanied by his beautiful young wife, ascended a platform raised at the bow of the vessel, and as Mrs. Nansen christened the vessel Fram (Forward) the hull glided gracefully into the sea amid the hurrahs of the assembled multitude.

Another interesting vessel, now being built in Norway, is the exact duplicate of the old Viking ship, which some years ago was found buried in a mound at Gogstad, near Sandefjord, and which is now preserved at the university at Christiana.

The duplicate, which is being built at the Framnaes shipyard in Sardefjord, will sail from Norway probably in April on her voyage via. New York to Chicago, she being destined for the World's Exposition. The work is progressing rapidly and the appearance of the hull already gives evidence of beautiful lines and proportions.

## NOTES.

A portion of Gen. Benedict Arnold's flagship Congress sunk in October, 1776, in Lake Champlain, has been raised by Capt. C. W. Adams, of West Addison, Vt. The timbers are of oak and are sound.

THE Meteorological Service of Canada was founded in 1872, and the Canadian government now proposes to deal with the accumulated observations, and to publish the general results in a readable form, which would be useful to immigrants and farmers. Three years will be required to complete the book. As it is, the service is doing good work, and publishes an annual report. Their observations range from Bermuda to British Columbia, and are to be extended in Manitoba. Of the storm warnings issued at Toronto some 80 per cent. are said to be correct. The railway companies as well as the farmers and mariners profit by the warnings of storms.

WE have from time to time noted a great many instances where other windlasses have been taken out and replaced by the Providence machines, made by the American Ship Windlass Company, of Providence, R. I. During the past twenty years the William Cramp & Sons' Ship and Engine Building Company have put Providence windlasses on every vessel that they have built, and the same is true of nearly all the ship-building yards on the lakes, also the Delaware River Iron Shipbuilding and Engine Works, with one exception; that was the Standard Oil Co.'s steamer Standard. In that case the owners called for some other windlass, but after testing it thoroughly it was condemned and a Providence windlass from the American Ship Windlass Company set up in its place. The windlasses and capstans built by the American Ship Windlass Company have long been the standard in this country, and scarcely any other has been used on all the better class of vessels throughout the country, until now they are being adopted very extensively by ship builders in Europe. Ship building all along the Clyde, and in and around Liverpool, have adopted these machines, and the American Ship Windlass Company have just received an order to deliver one to a ship now building on Norway account. On account of the extensive addition of new machinery and other important facilities the prices of these machines are little, if any, higher than the poorer machines in the market, and it is a serious loss, both of time and money, to be obliged to take off cheaper machines and replace them with the Providence.

## PROPOSALS.

U. S. ENGINEER OFFICE, HICKOX Building, 185 Euclid Avenue, Cleveland, O., November 1, 1892. Sealed proposals for dredging in straight channel through Maumee Bay, for Toledo Harbor, Ohio, will be received at this office until 2 o'clock, p. m., of Thursday, December 1, 1892, and then publicly opened. Specifications, blank forms and all available information will be furnished on application to this office. JARED A. SMITH, Corps of Engineers, U. S. A. 10-24

U. S. ENGINEER OFFICE, 34 WEST Congress st., Detroit, Mich., November 9, 1892. Sealed proposals for furnishing all labor, materials, and appliances, and excavating a ship channel 20 and 21 feet deep between Chicago, Duluth and Buffalo will be recived at this office until 2 p. m., standard time, on the following dates, and then publicly opened: For third section, Sailors' Encampment, on December 9, 1892; for seventh section, Grossepoint Flats, on December 10, 1892; for sixth section, St. Clair Flats, on December 12, 1892; for eighth section, mouth of Detroit River, on December 13, 1892; for second section, Little Mud Lake, on December 14, 1892; for fifth section, foot of Lake Huron, on December 15, 1892; for fourth section, Mud Lake Shoal, on December 16, 1892; for first section, Round Island shoals, on December 17, 1892. Specifications, blank forms, and all available information will be furnished on application to this office. O. M. POE, Colonel Corps of Engineers, Bvt. Brig.-General, U. S. A. 11-10—12-1.

UNITED STATES ENGINEER OFfice, Grand Rapids, Mich., November 8, 1892. Sealed proposals for pier construction at the harbors of Muskegon and Grand Haven, Mich., will be received at this office until 10 a. m. on December 1, 1892, and then publicly opened; and proposals for like work at the harbors of Manistee and St. Joseph, Mich., and Michigan City, Ind., will be received at this office until 10 a. m. on December 2, 1892, and then publicly opened. Specifications, blank forms and all available information will be furnished on application to this office. WILLIAM LUDLOW, Major of Engineers, Bvt. Lieut. Col., U. S. A. 17-24